Remarks

As an aid to the Examiner, the preceding clean version of the claims shows all the claims in the application, including the claims not amended hereby. Similarly, the marked-up version also includes the claims not amended hereby.

The Examiner indicated that claim 5 would be allowable if rewritten in independent form. By this amendment this has been done. Claims 3-4 and new claim 17 have been made dependent on claim 5 and are deemed allowable for the same reasons.

Claims 10 and 16 have been cancelled; and claims 1, 3-6, 11, 12 and 15 have been amended. Claims remaining in consideration are claims 1, 3-6, 8, 9, 11-13, 15 and 17.

Claim Rejection – 35 USC §112

Claims 11-13 and 15-16 are rejected under 35 USC § 112. Claim 16 has been cancelled. Applicant has amended claim 11 to recite "keeper" instead of "pawl." Other claims have been carefully reviewed for clarity and antecedent basis and some have been corrected accordingly or amended for readability.

Claim Rejection – 35 USC §103

Claims 1, 3-4, 6, 8-9, 11-13, and 15 are rejected under 35 USC § 103(a) as being unpatentable over United States Patent No. 4,770,093 to Gunther et al. in view of United States Patent No. 4,557,189 to Schaible. Neither Gunther nor Schaible disclose the structural limitation of "means for increasing a latch force as a bale increases in size." According to the Examiner, Schaible teaches a resilient means for increasing a latching force on the latching mechanism as bale size increased. It is believed that this conclusion is erroneous for reasons given below. Reconsideration is respectfully requested.

Schaible is the more pertinent reference. For convenience Fig. 1 of Schaible is attached. The pertinent numerals have been encircled in red and the rib (15) which

serves as a rigid connection is highlighted in yellow. Schaible shows a rolled bale press having a front stationary part (2) and a rear part (3) which are locked together by means of a hook (8) that engages a fixed stop. See col. 3, lines 50-51; see also attached Fig. 1. The hook (8) is connected to the rear part (3) in two ways. First, the hook (8) is connected to lever (5), which is hinged to the rear part (3). See col. 3, lines 50-65. Second, the hook (8) is connected to a rib (15), and the rib (15) is connected to the rear part (3) via a fork head (12) that encompasses a stationary bolt (14). See col. 4, lines 4-11. The forked head (12) is connected to a piston rod (11) of a hydraulic cylinder (10). In the position shown in Fig. 1 of Schaible the lost-motion connection provided by (12) is not operative. Rib (15) thereby provides a firm, mechanical connection from rear part (3) to the hook or latch (8). Again, in this position, the latch is firmly against its keeper (not numbered). The firm, mechanical connection thereby extends to the front part (2) via the latch and keeper. As Schaible states in column 4, lines 10-11, "**parts 2 and 3 are automatically locked together** when piston rod 11 is moved in." Thus there is no "means for increasing the latching force on the latching mechanism as a bale in the baling chamber increases in size" as called for in independent claims 1 and 5. Language of similar purport is also in independent claims 6 and 11.

While it is true Schaible discloses the use of a tension spring (6) for directionally biasing the hook (8) into engagement with the keeper, the spring serves no function. Imagine, if you will, that the hydraulic cylinder (10) is in a "float" mode in the Fig. 1 position. It can be seen that parts (2) and (3) are locked together by the members (12), (15), and (8) extending between bolt (14) and the unnumbered keeper. The tension spring (6) does not increase a latch force because the tension forces in the spring (6) cannot increase.

In contrast, Applicant's invention includes a structure wherein "[t]he force effective on the pawl 28 increases proportionately with the upward pivoting of the tension arm 18 as the diameter of the round bale 16 increases during the course of baling action." Specification, page 4, lines 19-21. As stated in the specification, the hydraulic cylinder 22 is operatively connected to the pivotal arm 19 and to the bell

crank 25. The position of the hydraulic cylinder 22 depends on the position of the pivotal arm 19. Moreover, the pivotal arm 19 is connected to the tensioning arms 18 and rotates therewith. Consequently, the hydraulic cylinder 22 moves with the tensioning arms 18. As the tensioning arms 18 rotate upwardly, the pivotal arm 19 pulls via the hydraulic cylinder 22 on the bell crank 25 which in turn pushes on the pawl 28, thereby increasing the latching force as the size of the bale increases.

For reasons given above the independent claims are deemed allowable over the art. The dependent claims add various structural and /or functional features that further distinguish over the art.

Applicant has amended claim 1 to remove unnecessary claim limitations. No new matter has been added by this amendment.

In view of the above, Applicant courteously requests reconsideration. It is submitted that this application is now in condition for allowance, and an early notice of allowance is solicited.

Respectfully submitted,

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Version With Markings to Show Changes Made

Following is a marked-up version of the application with all changes shown by conventional comparison (underlining and bracketing):

In the Claims

1. In a round baler for bailing harvested crops and having a baling chamber surrounded by a two-part housing of which a front part is rigidly connected to a frame of the baler while a rear part is in the form of a pivotal tailgate, the improvement comprising an actuating mechanism having a plurality of belts and rollers disposed adjacent one another within the baling chamber for enabling baling chamber size to vary when pivoted, and a tensioning arm provided with guide rollers and a pivotal arm, wherein the tensioning arm is [pivotally mounted on the frame of the baler via a hydraulic cylinder arranged between the pivotal arm and a first arm of a bell crank, wherein the first end of a bell crank is pivotally mounted on a side wall of the baler's tailgate, and wherein a second arm of the bell crank is] operatively engageable with a latching mechanism on a frontal part of the housing and [resilient] means for increasing a latching force on the latching mechanism as a bale in the baling chamber increases in size.

3. A round baler according to Claim [1] 5, wherein the actuating mechanism includes a plurality of mutually interlinked belts.

4. A round baler according to Claim [1] 5, wherein a fixed stop is arranged on the tailgate below the second arm of the bell crank.

5. [A round baler according to Claim 1, wherein the] In a round baler for bailing harvested crops and having a baling chamber surrounded by a two-part housing of which a front part is rigidly connected to a frame of the baler while a rear part is in the form of a pivotal tailgate, the improvement comprising: an actuating mechanism having a plurality of belts and rollers disposed adjacent one another within the baling chamber for enabling baling chamber size to vary when pivoted, and a tensioning arm provided with guide rollers and a pivotal arm, wherein the tensioning arm is pivotally mounted on the frame of the baler via a hydraulic cylinder arranged between the pivotal arm and a first arm of a bell crank, wherein the first end of a bell crank is pivotally mounted on a side wall of the baler's tailgate, and wherein a second arm of the bell crank is operatively engageable with a latching mechanism on a frontal part of the housing, means for increasing a latching force on the latching mechanism as a bale in the baling chamber increases in size, and including [includes] a tension spring arranged between the pivotal arm and a fixed mounting point on the frame of the baler.

6. In a round baler for bailing harvested crops and having a baling chamber surrounded by a two-part housing of which a front part is rigidly connected to a frame of the baler while a rear part is in the form of a pivotal tailgate, the improvement comprising an actuating mechanism having a plurality of circulating flat-type belts and pressure rollers disposed adjacent one another within a peripheral region of the baling chamber for enabling baling chamber size to vary when pivoted, and a tensioning arm provided with guide rollers and a pivotal arm, wherein the tensioning arm is pivotally mounted on the frame of the baler via a hydraulic cylinder arranged between the pivotal arm and a first arm of a bell crank, wherein the first end of the bell crank is pivotally mounted on a side wall of the baler's tailgate, [and] wherein a second arm of the bell crank is connected to a latch which is engageable with a keeper disposed on the frontal part of the housing, and resilient means for increasing a latching force on the keeper as a bale in the baling chamber increases in size.

8. A round baler according to Claim 6, wherein the actuating mechanism includes a plurality of mutually interlinked belts.

9. A round baler according to Claim 6, wherein a fixed stop is arranged on the tailgate below the second arm of the bell crank.

10. (Cancelled)

11. A method for bailing harvested crops utilizing a round baler having a baling chamber surrounded by a two-part housing of which a front part is rigidly connected to a frame of the baler while a rear part is in the form of a pivotal tailgate, the method comprising:

pivoting an actuating mechanism having a plurality of belts and rollers disposed adjacent to one another within the baling chamber to vary baling chamber size;

pivotally mounting a tensioning arm, having guide rollers and a pivotal arm, on the frame of the baler via a hydraulic cylinder arranged between the pivotal arm and a first arm of a bell crank;

interconnecting a latch with a second arm of the bell crank;

engaging a [pawl] keeper with the latch to lock the two-part housing in a closed position; and

increasing [the] a latching force [on the pawl] between the latch and keeper as the size of the bale increases.

12. The method according to Claim 11, including the steps of:

pivotally mounting [the first arm of] a bell crank on a side wall of the baler's tailgate; and

selectively engaging [a second] an arm of the bell crank with a frontal part of the housing via the latch.

13. The method according to Claim 11, including providing a plurality of mutually interlinked belts to form part of the actuating mechanism.

15. The method according to Claim [11] 12, including arranging a fixed stop [below the second arm of] adjacent the bell crank for engagement when releasing the latch and opening the pivotal tailgate.

16. (Cancelled)

17. A round baler according to Claim 5, wherein the latching mechanism includes a latch and a keeper.